

ABSTRACT OF THE DISCLOSURE

A cable modem which performs an upstream communication and downstream communication with a head end system detects a time-out in the downstream communication using a channel designated by the head end system. If the time-out is detected in the downstream communication, the cable modem sends by the upstream communication a notification that the time-out has been detected, and restores the downstream communication. The bi-directional communication system can set a suitable channel used in the upstream or downstream communication.